

REMARKS

Claims 78-92 and 94-125 are pending. Upon entry of this response, claims 78-92 and 94-161 will be pending, claims 94, 96-118, and 125 having been amended and claims 126-161 added in this response. Claims 119-124 remain withdrawn. The amendments and new claims find support in the original claims. Accordingly, there are no issues of new matter.

103(a) Rejections

Claims 78-118 and 125 were rejected under 35 U.S.C. 103(a) as allegedly being obvious over Yu (US Statutory Invention Registration H766). Applicants point out that claim 93 has been previously canceled and should therefore not have been rejected. Applicants traverse the remaining rejections.

Claim 125 as amended is directed to a method of producing a polyester by contacting an acid component with an alcohol component in the presence of a catalyst. The catalyst comprises (a) at least one metal-containing component selected from the group consisting of metals and metal compounds which has substantially no catalytic activity for a polyester polymerization; and (b) an organic compound component having at least one moiety represented by “Ar-O<” (Formula 1) and having substantially no catalytic activity for a polyester polymerization. The metal-containing component and the organic compound component together advantageously provide sufficient, increased catalytic activity for producing a polyester. See, e.g., “Summary of the Invention” section of specification.

Yu discloses a basic catalyst used in a polymerization process, where the catalyst may include alkali metals. See, e.g., Yu, col. 5, ll. 30-47. However, Yu does not disclose that the basic catalyst may also include an organic compound component containing at least one of the moieties represented by formulae 1 and 2, as in Applicants’ claim 125. Rather, Yu discloses that the basic catalyst may be dissolved in an organic solvent, preferably phenol. See, e.g., Yu, col. 5, ll. 47-48. For example, Yu discloses that the basic catalyst is preferably converted to liquid form by melting or by dissolution in a liquid or normally solid, low melting solvent, prior to introducing the catalyst into the polymerization reaction mass. See, e.g., Yu, col. 5, ll. 27-30. As such, it is not obvious from Yu’s disclosure that the solvent is a component of the basic

catalyst or that the solvent works with the alkali metal of the basic catalyst to improve catalytic activity.

The Office Action states that “this [phenoxy] compound is found as a solvent in Yu, and it is conventionally known that solvating a reagent, here the metal containing compound of the prior art, increase its reactivity.” See Office Action, page 3, item 4. However, unlike Yu’s catalyst, Applicants’ catalyst is able to provide enough catalytic activity *without* solvating. Therefore, it would not be obvious from Yu’s disclosure to produce a catalyst having an organic compound component without solvating.

Yu further discloses an esterification catalyst used with an acid-alcohol reaction during polyesteramide production. See, e.g., Yu, col. 7, ll. 7-19. However, Yu does not disclose that the esterification catalyst includes an organic compound component.

Moreover, Applicants have discovered that Applicants’ catalyst may provide sufficient, improved catalytic activity, the catalyst comprising a metal-containing component and an organic compound component, where neither component has substantial catalytic activity on its own. Applicants experimented with a catalyst of lithium acetate with no organic compound component and found insufficient catalytic activity in polymerization. See, e.g., Comparative Example 1-1 in the specification. Yu however discloses lithium acetate as a suitable basic catalyst. See, e.g., Yu, col. 5, ll. 30-37.

As discussed previously, Yu discloses using an esterification catalyst with its acid-alcohol reaction during polyesteramide production. See, e.g., Yu, col. 7, ll. 7-19. Yu does not disclose Applicants’ claimed catalyst, which comprises a metal-containing component and an organic compound component. Neither is there a teaching or suggestion in Yu to replace its esterification catalyst with Applicants’ claimed catalyst for polyesteramide production. Nor is it obvious from Yu’s disclosure that its acid-alcohol reaction would succeed with a catalyst other than the disclosed esterification catalyst.

For at least the above reasons, claim 125 and its dependent claims 78-92 and 94-124 are not obvious over Yu. Withdrawal of the rejections is requested.

New Claims

New claim 126 is directed to a method of producing a polyester by contacting an acid component with an alcohol component in the presence of a catalyst. The catalyst comprises, *inter alia*, an organic compound component having at least one moiety represented by “Ar-N<” (Formula 2).

Yu neither teaches nor suggests a catalyst that has an organic compound component with the “Ar-N<” moiety.

Accordingly, claim 126 and its dependent claims 127-161 are believed to be patentable over Yu.

CONCLUSION

The claims are believed to be allowable.

The Examiner is invited to contact the undersigned at 202-220-4200 to discuss any issues regarding this application.

The Office is authorized to charge any fees or credit any overpayment to Deposit Account No. 11-0600 referencing Docket No. 11197/5.

Respectfully submitted,

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